CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	**Painted Hills Trail Easement**
Proposed Implementation Date:	**June 2018**
Proponent:	**Gallatin County and Gallatin Valley Land Trust (GVLT)**
Location:	**W2W2NW4 Section 28-T2S-R6E**
County:	**Gallatin**

I. TYPE AND PURPOSE OF ACTION

The proposed action is the issuance of a public, non-motorized, permanent easement on approximately 3800 feet of new constructed trail and the lands encumbered by the trail, located on Western/Eastern Trust Lands. Total amount of land included in the easement would be ~5.92 acres. Gallatin County would be the holder of the trail easement. The Gallatin Valley Land Trust would be responsible for the monitoring and maintenance of the trail.

The purpose of the action is to (1) Realize the remaining connecting segment of the "Main Street to the Mountains" trail system on the southeast side of Bozeman; (2) Designate a responsible party for the supervision and maintenance of the new trail; (3) Develop a maintenance plan to ensure the long-term preservation of the new trail; and (4) Construct a sustainable and maintainable new trail.

(See Attachment A - Site Specific maps)

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The concept of the trail was brought to the attention of the DNRC Bozeman Unit in December 2014 by the Gallatin Valley Land Trust (GVLT).

A meeting was held on January 14, 2016 with K. Pohl (GVLT), DNRC Unit Manager C. Campbell and DNRC forester C. Barone.

An application for easement from the GVLT was received on June 22, 2017.

A field review was conducted on July 11, 2017 by L. Cain and J. Hough (GVLT), C. Berkhart (DNRC lessee) and DNRC forester C. Barone.

Individual scoping notices were sent in December 2017. Numerous comments were received in support of the project. None were received in opposition of the project.

Other contacts:

DNRC, Archaeologist, P. Rennie

DNRC, Real Estate Management Bureau Chief, M. Atwood

DNRC, Right of Way Specialist, Lisa Axline

DNRC, Right of Way Specialist, K. Motichka

DNRC, Public Access Specialist, R. Weiss

GVLT, Program Director, B. Weiner

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

The Gallatin County Weed District Board administers the State weed laws in Gallatin County.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: An easement would not be granted. Current management actions would be maintained.

Action Alternative: A public, non-motorized, permanent easement on approximately 3800 feet of new constructed trail and the lands encumbered by the trail would be granted, with additional mitigation measures, to the Proponent.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Soils are a loam to gravelly loam, very deep and well drained, formed in alluvium or colluvium parent material. In general, soil depth is typically greater than 60 inches before encountering bedrock. These soils are typically used for hayland, cropland, pasture and rangeland.

The soils are moderately favorable for trail use but have some features that are not favorable, i.e., slope, lower resistance to compaction and sheet and rill erosion. These unfavorable features can be mitigated with standard drainage practices.

The proposed project would construct ~3800 feet of new trail. Slopes along the trail location would range from 15-40%. The trail would have grades of ≤10% (max 12% on turns) and drainage features constructed. The trail route would allow foot, horse and bicycle access and would be subject to activity essentially year-round. Effective signing of the new access route would be conducted by the Proponents and permanent maintenance would be incorporated into the trail maintenance plan. Implementation of mitigation measures, trail best practices and a trail maintenance plan would reduce the risk of sedimentation from the trail and reduce the risk and severity of soil erosion and potential sediment delivery. Soil effects would be minimal.

With recommended best practices and mitigation measures, no significant impacts or cumulative effects are expected to soil resources.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed project is located east of an unnamed perennial stream on private lands which is tributary to the East Gallatin River. The East Gallatin River supports a cold-water fishery. The unnamed, perennial stream does not support any fishery at the upper reaches where the proposed project is located. A small dry draw on the State parcel does connect to the unnamed, perennial stream and could contribute from the State parcel during high run-off events. Channel stability for the small dry draw was observed to be good to excellent with highly functional riparian habitats.

The proposed trail would construct approximately 3800 feet of new trail on State lands. Slopes along the trail location would range from 15-40 %. The trail would have grades of ≤10% (max 12% on turns) and drainage features constructed. The trail route would allow foot, horse and bicycle access and would be subject to year-round activity. The proposed trail would be constructed through the small dry draw on the State parcel. To avoid any sediment delivery to the draw or drainage located below, sediment fence, slash filter windrows and surface drainage would be incorporated. Additional drainage features would be installed at appropriate locations along the trail.

Land management activities such as trail construction, maintenance and use can potentially increase levels of fine sediment delivery to streams if not properly located, designed, and mitigated. The primary risk to water quality that is associated with the proposed project is the trail location crossing the small dry draw. Risk of erosion and sediment delivery are highest when trails are located in areas with inadequate buffering between streams and other drainage features, on erosive soils, or on steep and/or unstable slopes. A lack of periodic maintenance, inadequate surface drainage features, and use during wet periods or conditions may also contribute to higher risk.

The new trail would be constructed with adequate drainage features. A trail maintenance plan would be adopted and an annual maintenance program implemented. Implementation of appropriate trail best practices and mitigation measures would reduce the risk of sedimentation from the trail; and reduce the risk and severity of soil erosion and potential sediment delivery to ephemeral drainage features.

With recommended trail best practices and mitigation measures, impacts and cumulative effects to water quality, water yield, watershed conditions, fisheries or any other beneficial uses associated with the watershed adjacent to the proposed project area or any downstream tributaries are expected to be minimal.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Initial construction of the trail would produce varying amounts of dust depending on the moisture content of the soils and combustion emissions from a mini-excavator. Particulates would be very localized and limited to the trail location area which is located away from residential structures. Any cumulative effects would be minor and temporary.

Subsequent recreational use of the trail would also produce dust during the right soil conditions but the amounts would be insignificant.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The State parcel is located north of the Gallatin Range in the lower valley shrub/grasslands. Lands occur in mildly broken ground that includes ridges, draws and benches. The elevations generally range from approximately 5,000 feet to 5,400 feet. The parcel is predominately used for hay production occurring on the more northerly aspects and grazing. Native rangeland occurs on the steeper slopes and western aspects of the parcel. Past disturbance in the project area includes residential development, recreational use and fire. Historically, fire was important with low to moderate intensity fires reducing excess litter and woody vegetation.

Common species of ground cover include bluebunch wheatgrass, pubescent wheatgrass, orchard grass, Idaho fescue, June grass, needle grass, smooth brome and timothy. Noxious weeds in the area include houndstongue, Canada thistle, cheatgrass, knapweed, common tansy, and St. Johnswort, occurring in small spotty populations to some larger infestations.

The State lessee grows certified weed free hay in the hay field directly east of the north half of the proposed trail. Current uses of the area would continue with a moderate increase in recreational use over time consistent with the area's population growth. The potential for the spread of noxious weeds with the increase in recreational use would be moderate. Weed infestations would be monitored each season and action taken to control their spread.

The proposed trail is located in native rangeland along the western edge of the parcel. Trail construction and maintenance activities would directly affect vegetation within the trail corridor. The effect to vegetation would occur on a narrow, confined area and the overall vegetation in the general area would not be affected. The disturbed areas would have a greater risk of weed infestation. Authorization of the proposed trail would remove ~0.35 acres from grazing production and, over time, substantially increase the recreational use of the area. Consequently, there is risk that new unauthorized trails would be created, which would spread more noxious weeds. Potential effects to vegetation include increased opportunity for weed spread, human-caused fires, and creation of unauthorized trails. Mitigations outlined in this document and the trail maintenance plan are designed to address these effects.

Although the easement would also include the lands encumbered by the trail (~5.57 acres), these additional lands would not be developed in anyway and are not expected to experience any substantial recreational use.

Managing the trail system in the area under an easement and maintenance plan would lead to identification and reclamation of problem areas on the trail, as well as increased public information that would provide details on how to use the trail responsibly to reduce the spread of noxious weeds, unauthorized trails, and human-caused fire. With the proposed increase in management, the trail would become more controlled and better maintained, therefore mitigating potential negative effects to vegetation.

All disturbed areas would be seeded with a native grass mixture and erosion control features would be installed where needed. No rare plants or cover types have been noted in the project area or the State parcel.

The DNRC requires the washing of equipment, seeding of disturbed areas and monitoring of disturbed areas to minimize the potential of noxious weeds being introduced.

With recommended trail best practices and mitigation measures, no significant impacts or cumulative effects to vegetative communities are expected from the proposed actions.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors and songbirds potentially use the project area.

There are no perennial streams or cold-water fisheries within the State parcel. Due to the location of the trail, relatively gentle topography, and distance from any cold-water fishery, the proposed project should not adversely affect fisheries.

Construction of this segment of trail would provide a critical connection to a much larger trail system and access to other adjacent trails. There would be no human development that would decrease linkage value and proposed activities would not impede wildlife and bird movements across the landscape, valleys or mountain ranges.

No adverse impacts are expected to terrestrial, avian or aquatic habitats.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The project area lies approximately 23 miles due north of the GYE grizzly bear recovery zone, and occurs at the northerly edge of the occupied habitat boundary. The project area is located in the lower foothill, valley grasslands where ample amounts of hiding cover and connected mature forest patches and riparian areas which would maintain suitable cover conditions for grizzly bears are not present. Due to the currently high levels of recreational and residential use that occur within and around the project area, use of this area by grizzly bears is considered unlikely. Adverse direct, indirect and cumulative impacts to grizzly bears as a result of this project are expected to be negligible.

The grassland cover types within the project area are not considered suitable for use by lynx or their primary prey snowshoe hares. The project area receives heavy levels of human disturbance attributable to dispersed recreational activities and residential use during all seasons of the year. Adverse direct, indirect or cumulative impacts to lynx as a result of this project are expected to be negligible.

No known gray wolf denning or rendezvous sites occur within 1 mile of the project area. However, wolves may occasionally use the project area and occasional sightings have been noted in the foothills area to the south. Minimal risk of direct, indirect or cumulative effects that would result in harm to wolves would be anticipated.

The proposed project area falls within the range of wolverines. The DNRC is not aware of any specific observations of wolverines associated with the proposed project area, however, periodic or transient use of the proposed project area could occur. Activities associated with this proposal are expected to have negligible effect on wolverines.

No occurrence records for greater sage grouse exist for the project area. Extensive stands of sagebrush community types do not occur within or near the project area. No direct, indirect or cumulative effects to greater sage grouse would be anticipated.

No adverse impacts are expected to threatened/endangered species, sensitive species or species of special concern.

(See Attachment E –CLO Checklist for Endangered, Threatened and Sensitive species)

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE. Because the area of potential effect on state land follows along the margin of cultivated fields, and because the Holocene age soils in the APE are relatively thin, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The project area is visible to populated areas. Due to the topography, location, size and nature of proposed action, impacts concerning aesthetics are not expected.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No measurable direct, indirect, or cumulative impacts on resources of land, water, air or energy are anticipated.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this parcel. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

No other studies, plans or projects effect the parcel. Although residential development activities are occurring on adjacent private lands, cumulative impacts due to the proposed project are not anticipated.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Waste from domestic pets and human-caused fires pose potential health and safety risks. Conflicts among different recreational user types (foot, horse and bicycle) could occur, especially with increase's in use over time consistent with the area's population growth.

Signage installed at trailheads, parking areas, and along the trail, in conjunction with a trail monitoring program, would provide increased opportunities to educate and inform users about trail-use safety, procedures, etiquette, fire risk, safe practices, and prevention opportunities.

With implementation of best practices and mitigation measures, direct and indirect effects to health and human safety are expected to be minimal.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

No measurable direct, indirect, or cumulative impacts are anticipated.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

No measurable impact to quantity and distribution of jobs is anticipated as a result of this proposal.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No measurable direct, indirect, or cumulative impacts to local and state tax base and revenues are anticipated.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Some law enforcement efforts may be required if unauthorized use or abuse occurs within the project area. Though it would be difficult to measure, it is anticipated that unauthorized use of the area is likely to increase with population growth, as it is located in an urban area with high recreational use.

With implementation of the Action Alternative, recreational use of the area is anticipated to moderately increase over time and traffic patterns are thus also likely to increase on the roads providing access to the trail.

Increased presence of public users may limit the opportunities for potential violators. Implementation of the trail maintenance plan, and the trail monitoring and publication education proposed therein, may also help reduce misuse and law enforcement response required to the area.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

The DNRC adopted the Administrative Rules for State Land Surface Management (ARM 36.25.101 through 36.25.817), applicable to management activities on school trust lands.

Gallatin County/Bozeman Area Plan (2005).

Gallatin County Community Wildfire Protection Plan (2006).

Gallatin County/Bozeman Area Zoning Regulation (Amended 2017).

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this parcel. Determine the effects of the project on recreational potential within the parcel. Identify cumulative effects to recreational and wilderness activities.

Persons having legal access to the State parcel and possessing a valid state lands general recreational use license or FWP conservation license may conduct specific recreational activities on the State parcel. The proposed project would allow the State parcel to be legally accessed with a designated open trail and would affect the existing access for the public.

Portions of the State lands in the NW4 Section 28-T2S-R6E (project location) and directly north in the SW4 Section 21-T2S-R6E are in crop production. From approximately April 1st through August 15th these lands are closed to the public but are open once crops have been harvested.

Currently the public can access the NW4 Section 28-T2S-R6E at the intersection of a county road and an access road into this State parcel. The SW4 Section 21-T2S-R6E has a similar access situation and the road in this parcel has a direct connection to the road in the NW4 Section 28-T2S-R6E. Accesses to both parcels are non-motorized, there are no designated parking areas and present public use is low. There have been ongoing issues with unauthorized vehicles using the access roads, driving in the crop fields and general revelry activities.

If the proposed trail is established, use in the State parcels would increase moderately and over time would continue to increase consistent with the area's population growth. Trail users would likely want to gain access to the trail from either of the county road accesses or exit the trail to gain access to these county road accesses, establishing unauthorized side trails.

Installing metal gates at the junctions of the county road and both State access roads, installing and maintaining fencing and appropriate signage at problem access points to the State parcels, and monitoring the use of the area would help mitigate existing and potential new issues.

While a formal trail system would increase the overall use of the area, active management of the trail use is expected to increase the access to, and quality of, recreational activities.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

No measurable impact to density and distribution of population and housing is anticipated.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

No measurable disruption of social structures and mores is anticipated.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

No impact to cultural uniqueness and diversity is anticipated.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Costs, revenues, and estimates of return are estimates intended for relative comparison of alternatives. They are not intended to be used as absolute estimates of return. The estimates of return are based upon a per-acre fee.

The estimated return to the trust would be $67,488.00 (5.92 acres @ $11,400.00/acre).

EA Checklist Prepared By:	**Name:**	Chuck Barone	**Date:**	March 8, 2018
	Title:	Bozeman Unit Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative: A public, non-motorized, permanent easement on approximately 3800 feet of new constructed trail and the lands encumbered by the trail would be granted, with additional mitigation measures, to the Proponent.

With the following stipulations:

Attachment B, "Trail Construction, Maintenance and Monitoring Plan" will be made part of the final executed easement.

Proponent will be required to perform trail construction, maintenance and monitoring as described in Attachment B, "Trail Construction, Maintenance and Monitoring Plan" for the Painted Hills Trail easement.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I have determined that none of the anticipated environmental impacts outlined in the EA are significant according to the criteria outlined in *ARM 36.2.524.* I find that no impacts are regarded as severe, enduring, geographically widespread, or frequent. Further, I find that the quantity and quality of various resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree. I find no precedent for future actions that would cause significant impacts, and I find no conflict with local, State, or Federal laws, requirements, or formal plans. In summary, I find that the identified adverse impacts will be avoided, controlled, or mitigated by the design of the project to the extent that the impacts are not significant.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Craig Campbell
	Title:	Bozeman Unit Manager
Signature:	Craig Campbell/s/	**Date:** March 12, 2018

ATTACHMENTS

Attachment A - Vicinity Map/Site Map
Attachment B - Trail Construction, Maintenance and Monitoring Plan
Attachment E - CLO Checklist for Endangered, Threatened and Sensitive species